

REMARKS

In the Office Action of August 18, 2004, the Examiner rejected claims 1-5 and 8 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,640,758 to Ashida; rejected claims 1-3 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,718,957 to Kakuho et al. in view of Ashida; rejected claims 12-30 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,537,976 to Hu in view of Ashida; rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Ashida in view of U.S. Patent No. 6,374,783 to Toriumi, and further in view of design choice; rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Ashida in view of Hu; and rejected claims 9-11 as being unpatentable over Ashida in view of Kakuho et al.

Applicants have cancelled claim 10, amended claims 1, 2, 4, 5, 8, 12, 13, 15, 17-20, 22, 24-26, 28, and 30, and have added new claims 31-38 to further claim aspects of Applicants' invention. No new matter has been added by this Reply. Claims 1-9 and 11-38 are pending in this application.

Applicants respectfully traverse the 35 U.S.C. § 102(e) rejection of claims 1-5 and 8 for at least the reason that Ashida fails to disclose every claim element. For example, Ashida fails to disclose, among other things, enabling a valve actuator to implement a variation on conventional engine valve actuation timing in response to one of a first and a second temperature being above a predetermined value, and limiting an amount of fuel injected into a cylinder of the engine when the other of the first and second temperatures is below a predetermined value, as recited in independent claim 1. In fact, Ashida does not even mention limiting an amount of fuel injected into a cylinder.

For at least these reasons, Ashida fails to disclose all the elements of independent claim 1. Accordingly, the rejection under 35 U.S.C. § 102(e) with regard to independent claim 1 is improper and should be withdrawn. In addition, claims 2-5 are in condition for allowance in view of their depending ultimately from independent claim 1. Further, each of these dependent claims also recites unique combinations that are neither taught nor suggested by Ashida.

Applicants respectfully traverse the 35 U.S.C. § 103(a) rejection of claims 1-3 as being unpatentable over Kakuho et al. in view of Ashida. No *prima facie* case of obviousness has been established with respect to claims 1-3 for at least the reason that no combination of Kakuho et al. and Ashida discloses or suggests every claim element. As described above, independent claim 1, from which claims 2 and 3 depend, recites a combination of steps including, among other things, enabling a valve actuator to implement a variation on conventional engine valve actuation timing in response to one of a first and a second temperature being above a predetermined value, and limiting an amount of fuel injected into a cylinder of the engine when the other of the first and second temperatures is below a predetermined value. Both Kakuho et al. and Ashida, alone and in combination, fail to disclose or suggest at least these claim limitations. In fact, neither Kakuho et al. nor Ashida even mention limiting an amount of fuel injected into a cylinder. Accordingly, the 35 U.S.C. § 103(a) rejection of claims 1-3 is improper and should be withdrawn.

Applicants respectfully traverse the 35 U.S.C. § 103(a) rejection of claims 12-30 as being unpatentable over Hu in view of Ashida. No *prima facie* case of obviousness

has been established with respect to claims 12-30 for at least the reason that no combination of Hu and Ashida discloses or suggests every claim element. For example, independent claims 12, 18, and 25, from one of which claims 13-17, 19-24, and 26-30 ultimately depend recites a combination of elements including, among other things, a controller configured to engage a valve actuator with an intake valve when one of a first and a second temperature is above a predetermined value, and to limit an amount of fuel injected into a cylinder of the engine when the other of the first and second temperatures is below a predetermined value. Both Hu and Ashida, alone and in combination, fail to disclose or suggest at least these claim limitations. In fact, neither Hu nor Ashida even mention limiting an amount of fuel injected into a cylinder. Accordingly, the 35 U.S.C. § 103(a) rejection of claims 12-30 is improper and should be withdrawn.

Applicants respectfully traverse the 35 U.S.C. § 103(a) rejection of claim 6 as being unpatentable over Ashida in view of Toriumi. No *prima facie* case of obviousness has been established with respect to claim 6 for at least the reason that no combination of Ashida and Toriumi discloses or suggests every claim element. As recited above, independent claim 1, from which claim 6 depends, recites a combination of steps including, among other things, enabling a valve actuator to implement a variation on conventional engine valve actuation timing in response to one of a first and a second temperature being above a predetermined value, and limiting an amount of fuel injected into a cylinder of the engine when the other of the first and second temperatures is below a predetermined value. Both Ashida and Toriumi, alone and in combination, fail

to disclose or suggest at least these claim limitations. Accordingly, the 35 U.S.C. § 103(a) rejection of claim 6 is improper and should be withdrawn.

Applicants respectfully traverse the 35 U.S.C. § 103(a) rejection of claim 7 as being unpatentable over Ashida in view of Hu. No *prima facie* case of obviousness has been established with respect to claim 7 for at least the reason that no combination of Ashida and Hu discloses or suggests every claim element. As described above, independent claim 1, from which claim 7 depends, recites a combination of steps including, among other things, enabling a valve actuator to implement a variation on conventional engine valve actuation timing in response to one of a first and a second temperature being above a predetermined value, and limiting an amount of fuel injected into a cylinder of the engine when the other of the first and second temperatures is below a predetermined value. Both Ashida and Hu, alone and in combination, fail to disclose or suggest at least these claim limitations. As described above, neither Ashida nor Hu even mentions limiting an amount of fuel injected into a cylinder. Accordingly, the 35 U.S.C. § 103(a) rejection of claim 7 is improper and should be withdrawn.

Applicants respectfully traverse the 35 U.S.C. § 103(a) rejection of claims 9-11 as being unpatentable over Ashida in view of Kukuho et al. No *prima facie* case of obviousness has been established with respect to claims 9 and 11 for at least the reason that no combination of Ashida and Kukuho et al. discloses or suggests every claim element. As described above, independent claim 1, from which claims 9 and 11 ultimately depend, recites a combination of steps including, among other things, enabling a valve actuator to implement a variation on conventional engine valve

actuation timing in response to one of a first and a second temperature being above a predetermined value, and limiting an amount of fuel injected into a cylinder of the engine when the other of the first and second temperatures is below a predetermined value. Both Ashida and Kakuho et al., alone and in combination, fail to disclose or suggest at least these claim limitations.

In the Office Action, the Examiner maintained that Kakuho et al. discloses limiting a fuel injection amount when one of two temperatures is below a predetermine value. However, Kukuho et al. does not teach limiting a fuel injection amount when one of the temperature is below a predetermine value. In contrast, Kukuho et al. teaches changing a fuel injection amount in proportion to a temperature and never teaches a predetermined value initiating the limitation (see col. 16, lines 28-58). Further, as described in lines 41-43 of col. 16, as illustrated in Fig. 9 of Kukuho et al., as seen from the equations in lines 26-29, 42-46, and 50 of col. 18, and in opposition to claims 9 and 11, the amount of fuel injected into the engine of Kukuho et al. decreases as an engine operating temperature and /or an intake air temperature increases and conversely increases as the engine operating temperature and /or an intake air temperature increases.

Because no combination of Ashida and Kukuho et al. discloses or suggests every element of claims 9 and 11, the 35 U.S.C. § 103(a) rejection with respect to claims 9 and 11 is improper and should be withdrawn.

Applicants submit that new claims 31-38 are allowable in view of their depending ultimately from one of independent claims 1, 12, 18, and 25. New claims 31-38 also include additional recitations of novelty.

The Office Action contains characterizations of the claims and the related art with which Applicant does not necessarily agree. Unless expressly noted otherwise, Applicant declines to subscribe to any statement or characterization in the Office Action.

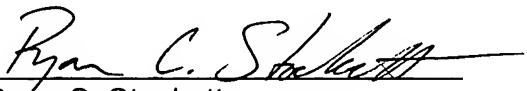
In view of the foregoing amendments and remarks, Applicants respectfully request the reconsideration of this application and the timely allowance of the pending claims.

If there is any fee due in connection with the filing of this Amendment, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

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